

Montana Department of Natural Resources and Conservation Water Resources Division Water Rights Bureau
ENVIRONMENTAL ASSESSMENT For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address:* Pondera County Conservation District
Jack Judisch, Chairman of the Board
406 North Main
Conrad, MT 59425
2. *Type of action:* Application to Change a Reserved Water Record No. 41M-28544-00
CD Authorization No. PO-171-071-01, G. Arnst Farms
3. *Water source name:* Birch Creek
4. *Location affected by project:* The proposed point of diversion will be located in the NWSWSE of Sec. 34, T30N, R6W, Pondera County. The proposed place of use is comprised of 172 acres located in portions of Sections 1, 2 and 35, T29N and T30N, R6W, all in Pondera County.
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

The applicant is seeking a change in the location and the place of use of the remainder of the Pondera County Conservation District reserved water right of 1164 gpm (2.95 cfs) up to 346 acre feet for pivot sprinkler irrigation use on a total of 172 acres. The period of use is from April 15th to October 15th inclusive of each year. The ultimate user of this water will be G. Arnst Farms. This reservation was initially granted per the final order issued by the Board of Natural Resources and Conservation establishing water reservations in the Missouri River Basin above Fort Peck Dam. The change in the location of the point of diversion and the place of use is because the new locations are outside of the areas that were originally published in the original application. The pivot irrigation project has been mostly developed with the exception of changes to the means of diversion. The place of use is currently being irrigated under associated water right Provisional Permits 41M 9221-00 and 41M 39527-00 with water from Laughin Coulee. Provisional Permits 41M 9222-00 and 41M 13936-00 will share point of diversion and means of conveyance to irrigate the remaining cropland acreage located in the irrigation project area. Where the proposed change is related to a water reservation, there is no historical use of this water right. If a change authorization is issued, there would be an increase in the amount of revenue generated from enhanced crop production which would benefit both the ultimate user of the water reservation and the local economy.

The DNRC shall issue an authorization to change if the applicant proves the criteria in 85-2-402, MCA, are met.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources Conservation Service (NRCS) Soils Data Website
Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: Birch Creek is considered as a chronically dewatered stream by the Dept. of Fish, Wildlife, and Parks (DWWP) from the headwaters to the confluence of the Two Medicine River. Streams that support important or contribute to important fisheries that are significantly dewatered by human-caused flow depletions. Chronic dewatering is a significant problem in virtually all years according to DFWP findings. This is a proposed change in the location of the point of diversion and place of use pertaining to a water reservation for water reserved for Pondera County Conservation District as quantified and granted by the Board of Natural Resources and Conservation. These changes proposes moving the originally advertised two points of diversion downstream 100 yards and 39 stream miles respectively and reduce down to one point of diversion. DWWP has a water reservation quantified and granted by the Board of Natural Resources and Conservation on Birch Creek from river mile 37.6 to river mile 60.9 and is located approximately 5 stream miles upstream of the proposed project area point of diversion. The DWWP water reservation information below is for informational purposes only.

From (rm 37.6) to (rm 60.9) HIGHWAY to SWIFT RESERVOIR

<i>Begin</i>	<i>End</i>	<i>Flow (CFS)</i>	<i>Priority Date</i>
<i>01/01</i>	<i>12/31</i>	<i>64</i>	<i>7/1/1985</i>

Instream Flow Protection Data Source: DWWP Website and DNRC Records

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: The 2002 Water Quality listed on the 303d report from the Montana Department of Environmental Quality (DEQ) was obtained from their website containing water quality information about Birch Creek from Blacktail Creek to the confluence with the Two Medicine River. The Beneficial Use Support Information, Beneficial Use Support lists agriculture, drinking water, and industrial uses as fully supportive. The uses not assessed in the report were aquatic life support, cold water fishery – trout and primary contact (recreational) uses. No significant impact to the water quality within Birch Creek is anticipated by the proposed project.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: Where the proposed project is associated with a water reservation, no historical data is available to assess any positive or negative impacts to groundwater resources.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: The proposed point of diversion is a sump located in the stream channel and is to be constructed of concrete, steel and stainless steel. Irrigation water will be drawn from the sump to two primary centrifugal pumps. From that point, the water flow will be divided to deliver flow via two dedicated 12 inch IPS transmission pipelines to two separate pivot systems and respective inline booster pumps referenced in the application as Pivot B and Pivot E. The Pivot B system is the larger of the two pivots. This pivot is to utilize a 3 phase 125hp electric motor driving a centrifugal Cornell model 6H as the primary base pump. From there, water will be diverted through a 12 inch IPS pipeline gaining 100 feet in elevation to a secondary booster pump. The booster pump is a 3 phase 125hp variable drive Cornell 6H booster pump that has the ability to vary water delivery flows at a constant pressure to the pivot depending on pivot corner arm and end gun operation. From that pump, water will be delivered 1,000 feet via a 12 inch PVC pipeline to the pivot with a gain in elevation from 80 feet to 200 feet depending on the field elevation that the pivot is operating. For the Pivot E system, a 3 phase 100 hp electric will drive a Cornell 6H centrifugal pump that will discharge water to a second booster pump via a devoted 12 inch IPS pipeline with an increase in elevation of 100 feet. The Cornell 5RB centrifugal booster pump then directs water through a 12 inch IPS and PIP pipeline to Pivot E. Disturbance to the stream bed during construction and operation of the diversion works are typical of the area and are not expected to create any significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

Determination: According to the information provided by the Montana Natural Heritage program, the one record of species of concern in the vicinity of the proposed project is the Grizzly Bear. Where this application is for a change of location for a water reservation to be applied on an already developed project little to no impact of the current environment is anticipated from this proposed change in the location of use.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: No known wetlands exist in the project area according to the National Wetlands Inventory published data.

Ponds - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

Determination: Not applicable to the application.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

Determination: Data from the NRCS soils website indicate that the project area contains Rothiemay clay and gravel loams with 0%-4% slopes and Niart clay and gravel loams with 0%-4% slopes as the predominant soil types. The enhancement of the irrigation capabilities of the project area by utilizing Pondera County Conservation District's reserved water will contribute to the control of saline seepage. Due to the design and operation of the project, there is little impact anticipated.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

Determination: There will be some stream bank disturbance during the construction process as proposed. The current Birch Creek banks are currently in native vegetation. The concrete and

steel sump type design should not have a significant impact to existing vegetative cove. However it is the applicant's responsibility to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: impacts to air quality will occur as a result of this project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: According to the Montana State Historical Society (SHPO), there have been no previously recorded sites within the point of diversion area. The only ground disturbance that is to take place is in association with the construction of the point of diversion sump box. The remainder of the proposed project has been developed and put to use for some time. As such, any potential site disturbance has already taken place. The SHPO can be consulted at the private property owner's discretion.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: The project should have no significant or harmful impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: The development should have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No_x_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: This application is for the Pondera County Conservation District in which its commissioned purpose is to balance the highest and best use of local natural resources for the benefit of private citizens. No adverse effect on private property rights is anticipated from this development.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact.
- (b) Local and state tax base and tax revenues? No significant impact.
- (c) Existing land uses? No significant impact.
- (d) Quantity and distribution of employment? No significant impact.
- (e) Distribution and density of population and housing? No significant impact.
- (f) Demands for government services? No significant impact.
- (g) Industrial and commercial activity? No significant impact.
- (h) Utilities? No significant impact.
- (i) Transportation? No significant impact.
- (j) Safety? No significant impact.
- (k) Other appropriate social and economic circumstances? No significant impact.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts? No secondary impacts have been identified.

Cumulative Impacts? No cumulative impacts have been identified.

3. *Describe any mitigation/stipulation measures:* None

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

No action alternative:

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The applicant would not be able to develop their water reservation and put the water to a beneficial use as was granted to the ultimate water user by the Pondera Conservation District. The applicant's water reservation would continue undeveloped and be without the previously stated benefits.

Alternative 1:

Approve the change application as submitted if the applicant proves the statutory criteria has been met.

PART III. Conclusion

1. Preferred Alternative: Alternative 1.

2. Comments and Responses: None

4. Finding:

Yes___ No **X** *Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Matt Miles

Title: Water Resources Specialist

Date: 01/14/2008